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Dkt. No. 51320-AB/JPW/SHS

N THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Graham P. Allaway, et al.

Serial No. : 09/852,238

Filed : May 9, 2001

For : USES OF A CHEMOKINE RECEPTOR FOR

INHIBITING HIV-1 INFECTION

1185 Avenue of the Americas New York, New York 10036

August 10, 2001

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. §1.56, applicants direct the Examiner's attention to the following references which are listed on the PTO-1449 form attached hereto as Exhibit A.

- U.S. Serial No. 5,021,409 issued June 4, 1991, issued to Murrer et al.;
- 2. U.S. Serial No. 5,126,433, issued June 30, 1992, Maddon et al.;
- 3. U.S. Patent No. 5,440,021, filed February 25, 1994, issued August 5, 1995, Anan Chuntharapai, et al.
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The subject application is a continuation of U.S. Serial No. 09/724,105, filed November 28, 2000, continuation of second U.S. Serial No. 08/874,618, filed June 13, 1997. The above listed references 1, 6, 8, 14, 19, 30, 31, 37, 38 were submitted and considered by the United States Patent and Trademark Office in an Information Disclosure Statement filed January 19, 2001 in connection with U.S. Serial No.08/874,618. The above listed references 3-5, 7, 9, 10-12, 15, 16, 18, 20, 24, 25, 27, 28, 29, 32-36, 39-45 were submitted to and considered by the United States Patent and Trademark Office in an Information Disclosure Statement filed January 4, 1999 in connection with U.S. Serial The above listed references 2,13, 17, 20-23 No. 08/874,618. and 26 were cited in an Office Action issued September 2, 1998 in connection with U.S. Serial No. 08/874,618. Accordingly, under 37 C.F.R. §1.98(d) copies of these references are not required to be provided to the United States Patent and Trademark Office, since they were previously cited by, or submitted to, the United States Patent and Trademark Office in an application relied upon for an earlier filing date under 35 U.S.C. §120.

Summary

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorneys invite the Examiner to telephone either of them at the number provided below.

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Pursuant to 37 C.F.R. §1.97(b)(3), no fee is deemed necessary in connection with the filing of this Information Disclosure However, if any additional fee is required, Statement. authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125

Respectfully submitted,

hereby certify that correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

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Date

Reg. No. 28,678 Spencer H. Schneider

Reg. No. 45,923

John P. White

John P. White Registration No. 28,678 Spencer H. Schneider Registration No. 45,923 Attorneys for Applicant(s) Cooper & Dunham, LLP 1185 Avenue of the Americas New York, New York 10036 (212) 278-0400

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EXAMINER

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U.S. Department of Commerce Patent and Trademark Office

INFORMATION DISCLOSURE CITATION

Atty. Docket No. Serial No. 51320-AB/JPW/SHS 09/852,238

Applicants

Graham P. Allaway et al.

Filing Date Gr up (Use several sheets if necessary) May 9, 2001 U.S. PATENT DOCUMENTS Class Subclass Filing Date Name **Document Number** Examiner if Appropriate Initial A. Chuntharapai, et al. US 5 0 8/5/94 4 • 5 5 0 0 3 0 4 4/2/96 US H. Li et al. Murrer et al. 6/4/91 2 4 0 9 US 15 0 Maddon et al. US 6/30/92 FOREIGN PATENT DOCUMENTS Translation Class Subclass **Document Number** Date Country No Yes OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Alkhatib, Ghalb, et al., (1996) "CC CKR5: A RANTES, MIP-1α, MIP-1β Receptor as a Fusion Cofactor for Macrophage-Tropic HIV-1" Science 272:1955-1958; Arenzana-Selsdedos, Fernando, et al., (1996) "HIV blocked by chemokine antagonist" Nature 383:400; Bleul, Conrad, C., et al., (1996) "The lymphocyte chemoattractant SDF-1 is a ligand for LESTR/fusion and blocks HIV-1 entry" Nature 382:829-832; Brenner, T.J., et al. (1991) "Relation between HIV-1 syncytium inhibition antibodies and clinical outcome in children" The Lancet 337:1001-1005; Choe, Hyeryun, et al., (1996) "The β-Chemokine Receptors CCR3 and CCR5 Facilitate Infection by Primary HIV-1 Isolates" Cell 85:1135-1148; Cocchi, Florenza, et al., (1995) "Identification Of RANTES, MIP-1α, and MIP-1β as the Major HIV-Suppressive Factors Produced by CD8⁺ T Cells" Science 270: 1811-1815; De Clercq, et al.,(1994) "Highly potent and selective inhibition of human immunodeficiency virus by the bicyclam derivative JM3100" Antimicrobial Agents and Chemotherapy 38(4):668-674; De Clercq, E., (1995) "Antiviral therapy for human immunodeficiency virus infections" Clinical Microbiology Reviews 8(2):200-239; Doranz, et al., (1996) "A dual-tropic primary HIV-1 isolate that uses fusin and the βchemokine receptors CKR-5, CKR-3, and CKR-2b as fusin cofactors" Cell 85:1149-1158;

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